REMARKS

Claim 46 has been added; claims 1-46 are pending in this application.

The April 1, 2002 Office Action required restriction from among:

Group I. Claims 1, 5-23, 44, 45, and 33-40, drawn to the protein having the amino acid sequence of SEQ ID NO: 1;

Group II. Claims 2, 3, 5-23, 44, 45, and 33-40, drawn to the protein having the amino acid sequence of SEQ ID NO: 3;

Group III. Claims 4, 5-23, 44, 45, and 33-40, drawn to the protein having the amino acid sequence which differs from the sequence of SEQ ID NO: 3;

Group IV. Claims 24 and 26, drawn to a polynucleotide which encodes a protein as in Groups I-III;

Group V. Claim 25, drawn to a polynucleotide which comprises the coding sequence of SEQ ID NO: 2; and

Group VI. Claims 41 and 43-45, drawn to the protein having the amino acid sequence of SEQ ID NO: 5.

Group I is provisionally elected with traverse for further prosecution in this application. Applicants retain the right to file divisional applications drawn to non-elected subject matter. Reconsideration and withdrawal of the restriction requirement are respectfully requested in view of the remarks herein.

The Office Action alleges that Groups I-VI do not form a single inventive concept under PCT Rule 13.1 because they lack the same or corresponding special technical feature under PCT Rule 13.2. Applicants respectfully disagree.

Groups I-III are clearly related because the claims in both groups possess the same special technical feature, that feature being that they are all drawn to the antibacterial protein salivaricin B. SEQ ID NO: 3, referred to in the claims of Groups II and III, represents the entire amino acid sequence of salivaricin B; and, SEQ ID NO: 1, referred to in Group I, represents the N-terminal sequence of the same protein. In addition, the claims of Group III are directed to the same sequence as recited in the Group II claims, with the exception that only one, two or three amino acids are changed. The key issue is that the proteins of the Group I, II and III claims are structurally analogous and functionally equivalent in that they all exhibit antibacterial activity. This is the special technical feature that defines the contribution of the invention and unites the

claims of Groups I-III in a single general inventive concept. Further, although Applicants are aware that the guidelines set forth in MPEP 802 and 803 do not apply to this application, as a matter of practicality, it is respectfully submitted that a search of the claims of any of Groups I-III would necessarily encompass matter of both of the other groups without placing undue burden on the Examiner.

It is submitted that new claim 46 captures the essence of the invention in such a way as to demonstrate the interrelatedness of the claims of Groups I-III. It is therefore requested that, in the event the restriction requirement is maintained by the Examiner, claim 46 be examined with the elected subject matter.

It is further argued by the Applicants that the claims of Groups IV and V also do not represent distinct inventions. Group V is drawn to the polynucleotide described by SEQ ID NO: 2, which corresponds to the coding sequence of salivaricin B. As salivaricin B, along with its structural analogs and functional equivalents, is the protein of Groups I-III, the polynucleotide encoding it and claimed in the Group IV claims is not a different invention from the polynucleotide of Group V that encodes the same protein. Therefore, Groups IV and V do have unity of invention by virtue of the fact that they are drawn to nucleic acid molecules that encode salivaricin B proteins having bacteriocidal activity.

Additionally, Example 17 of Annex B Part 2 of the PCT Administrative Instructions (Appendix AI of the MPEP) provides:

> Claim 1: Protein X
> Claim 2: DNA sequence encoding protein X.
>
> Expression of the DNA sequence in a host results in the production of a protein which is determined by the DNA sequence. The protein and the DNA sequence exhibit corresponding special technical features. Unity between claims 1 and 2 is accepted.

The claims of Groups I-V are related. The polynucleotides in the claims of Groups IV and V encode the protein of Groups I-III, and, according to Example 17, have unity of invention. Therefore, these claims should be searched and examined in the same application.

Finally, the result of the present restriction requirement is inefficiency and unnecessary expenditures by both the Applicants and the PTO, and prejudice to Applicants (particularly in view of GATT, as a shortened patent term may result in any divisional applications filed). Restriction has not been shown to be proper, especially since there are clear relationships between the claims of Groups I-III, which claim the salivaricin B antibacterial protein and its

functional equivalents, and the claims of Groups IV and V, which claim the nucleic acid molecules encoding salivaricin B proteins. These factors mitigate against restriction, and support Applicants' position that at least the claims of Groups I-V, along with newly added claim 46 should be examined together in this application.

Therefore, it is evident that there is unity of invention in the pending claims, and in view of the foregoing, reconsideration and withdrawal of the Requirement for Restriction is requested. Early and favorable examination on the merits of this application are earnestly solicited.

If any fees are determined to be due for entry and consideration of this paper, the Assistant Commissioner is authorized to charge any fee or credit any overpayment to Deposit Account No. 50-0320.

Respectfully submitted,

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